COMMITMENT & INTEGRITY
DRIVE RESULTS

40 Shattuck Road | Suite 110
Andover, Massachusetts 01810
www.woodardcurran.com

T 866.702.6371
T 978.557.8150
F 978.557.7948

January 21, 2016

Mr. Kurt Limesand
U.S. Environmental Protection Agency Region 7
11201 Renner Blvd.
Mail Code: AWMDRCAP
Lenexa, KS 66219

Re: PCB Remediation Status Update – Behlen Laboratory Roof
University of Nebraska - Lincoln, Nebraska

Dear Mr. Limesand:

This status update has been prepared to document the current status of polychlorinated biphenyl (PCB) remediation activities associated with parapet wall flashing joints on the roof of the Behlen Laboratory building. Specifically, this update provides the results of characterization sampling of the various media associated with the parapet wall flashing joints and the remediation and disposal plans based on those results. This letter does not provide a status update regarding the PCB remediation activities associated with the Behlen façade renovation as described in the December 2014 PCB Remediation Plan and the February 2015 Risk-Based Cleanup Request Approval (which are on-going as planned).

As described in the October 26, 2015 PCB Remediation Modification request (the Plan Modification), caulking containing PCBs > 50 ppm was identified on the inner parapet wall flashing joints along the perimeter of the roof (approximately 465 linear feet [l.f.]). The Plan Modification included the removal and off-site disposal of the caulking, copper flashing, and portions of the EDPM roofing as a single PCB Bulk Product Waste stream along with the in-place management of residual PCBs within parapet wall materials scheduled to remain in place (the EDPM roofing was to be segregated through characterization sampling as either PCB waste or general demolition debris).

EPA approved the Plan Modification via email on November 5, 2015 with an additional request for characterization sampling of roofing ballast materials to confirm the absence of PCB impacts.

The results of the characterization sampling, and the planned remediation/disposal approach for each of the roofing materials based on that data, as well as the additional EDPM characterization data, is provided below.

Caulking and Copper Flashing – As per the Plan Modification, these materials will be removed and managed for off-site disposal as PCB Bulk Product Waste in accordance with 40 CFR 761.62.

Roofing Ballast Materials – Three samples of roofing ballast materials were collected and submitted for PCB analysis. The samples were collected from ballast materials at the base of the flashing to evaluate potential worse-case conditions with regard to PCB impacts. At each location, ballast material was collected and submitted to the analytical laboratory for processing and analysis. Upon receipt, the laboratory pulverized the ballast materials to generate a powder suitable for extraction via USEPA method 3540C and PCB analysis via USEPA method 8082. Analytical results from the three samples indicated that PCBs were non-detect with reporting limits of < 0.099 ppm, < 0.10 ppm, and < 0.10 ppm.

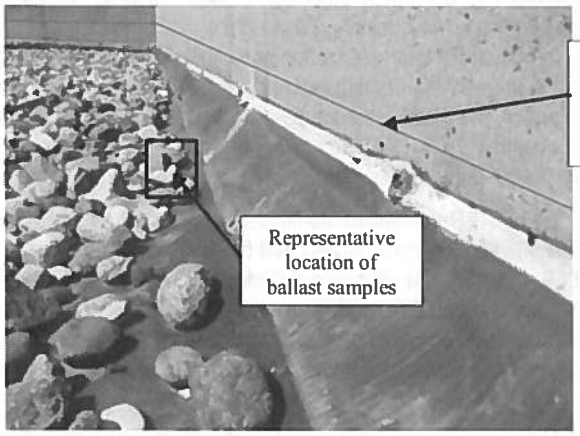
Based on these results, the ballast materials will be removed for off-site disposal without further consideration with regard to PCBs.

EDPM Roofing – In support of the waste segregation plan, two samples of EDPM roofing were collected from each side of the building at a distance of 12 inches from the flashing and submitted for PCB analysis (8 samples). Analytical results indicated that PCBs were present at concentrations > 1 ppm in 7 of the 8 samples with total PCBs ranging from 2.3 ppm to 28.8 ppm with an average concentration of 7.9 ppm. Results from one sample collected from the east side of the building indicated that PCBs were non-detect (< 0.79 ppm).

Based on these results, concerns over additional sampling damaging the watertight condition of the roof (prior to the scheduled replacement), and the amount of EDPM roofing material on the roof as a whole, the project team has elected to dispose of the entire EDPM roofing material as a PCB Bulk Product Waste with the parapet caulking and flashing materials.

Parapet Walls – Consistent with the remediation plan for concrete materials scheduled to remain in place on the façade of the building, residual PCBs in the concrete parapet walls at concentrations ≥ 25 ppm will be managed in place through the application of liquid coatings and secondary physical barriers. To determine the required extent of encapsulation, samples were collected from parapet wall materials at a distance of 2 inches above the caulked joints. As per the Plan Modification, two samples were collected from each elevation for a total of eight samples. Analytical results indicated that PCBs were non-detect in all eight samples (reporting limits of < 0.10 or less). Based on these results, following removal of the caulking and flashing, two coats of liquid coating will be applied to parapet wall materials to a distance of 2 inches above and below the former joint (following the collection of baseline samples from former direct contact materials as described in the Plan Modification). In accordance with project requirements and the Plan Modification, the replacement roofing and flashing will installed as a secondary physical barrier over the encapsulated parapet wall surfaces.

A photo of the typical roof conditions is provided below.



Typical Roof Parapet Flashing Joint – caulking, flashing, and EDPM roofing to be removed for disposal as PCB Bulk Product Waste

Schedule

Removal and replacement of the roof will be conducted as part of the ongoing renovation project. The roof replacement is currently scheduled for the first or second quarter of 2016.

If you have any comments, questions, or require further information, please do not hesitate to contact me at 978-482-7873 (office), 978-317-3635 (cell), or at jhamel@woodardcurran.com.

Sincerely,

WOODARD & CURRAN INC.

Jeffrey Hamel, LSP, LEP
Senior Principal

cc: D. Bowder, University of Nebraska
J. Webb, University of Nebraska
B. Osthus, University of Nebraska